



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,934	09/16/2003	Ravi Prasad	HOETRE24ACON	2322

270 7590 08/11/2004

HOWSON AND HOWSON  
ONE SPRING HOUSE CORPORATION CENTER  
BOX 457  
321 NORRISTOWN ROAD  
SPRING HOUSE, PA 19477

EXAMINER
----------

HON, SOW FUN

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/663,934

**Applicant(s)**

PRASAD, RAVI

**Examiner**

Sow-Fun Hon

**Art Unit**

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/12/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-9, drawn to a process, classified in class 264, subclass 510.
- II. Claim 10-22, drawn to an article, classified in class 428, subclass 34.7.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the article can be made with an extra step of providing an inert atmosphere during treatment of the maleic anhydride surface of the polymeric substrate.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Kathy Kodroff on July 26, 2004 a provisional election was made without traverse to prosecute the invention of Group II, claims 10-22.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10-12, 15, 18, 20-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,649,235.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the process claims of US 6,649,235 contain the article presently claimed.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1772

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 10 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jialanella (US 5,741,594), as evidenced by Alger (Polymer Science Dictionary, 2<sup>nd</sup> edition).

Jialanella has a laminate (abstract) comprising: (a) a polymeric substrate consisting of a first surface of a maleic anhydride modified polyolefin layer (preferred grafting compound for olefin copolymer) (column 4, lines 10-15) (adhesion promoter which superposes the first substrate (column 3, lines 60-65) and a second surface of a selected polyolefin layer (abstract); and (b) a glass coating on the maleic anhydride modified layer (glass second substrate adhesively bonded to the first substrate) (column 5, lines 40-45). Glass is polysilicate, as evidenced by Alger.

Alger teaches that silicate glasses are also known as polysilicates (silicate polymer section, pp 520-521).

Even though product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Although Jialanella fails to teach that the maleic-anhydride modified polyolefin layer is coextruded with the selected polyolefin layer, the product is still a laminate of the two layers.

Likewise, the resulting product is a laminate of the polysilicate layer (glass second substrate) to the maleic anhydride modified polyolefin layer and the selected polyolefin layer, even though the polysilicate (glass) is not applied as a coating. However, it would have been obvious to one of ordinary skill in the art to apply the polysilicate layer as a coating when the layer is thin.

9. Claims 10, 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard et al. (US 5,882,798) in view of Adur et al. (US 4,957,968).

Hubbard et al. teaches that in the case of polypropylene (a selected species of polyolefin), a primer layer (solution) can be used to improve the wetting of the barrier coating solution on the polypropylene substrate where corona treatment does not cause suitable wetting of the coating on the polymer (column 4, lines 53-61). The coating is polysilicate (column 4, lines 20-30). Therefore Hubbard et al. teaches a coated polymeric article comprising (a) a polymeric substrate consisting of a first surface of a primer layer and a second surface of a selected polyolefin layer (polypropylene is a species), and (b) a polysilicate coating on the primer layer.

Regarding claim 13, Hubbard et al. teaches that bottles are much thicker, typically 14 mil (column 16, lines 1-5). Thus the claimed substrate thickness ranging from about 20 to about 50 mil is the result of routine optimization for the desired end use.

Regarding claims 14-15, the article can be a polymer film (column 2, line 10) (claim 14), which is biaxially oriented (column 17, lines 30-35) (claim 15).

Regarding claim 16, the substrate can have a thickness of 1.2 mil (column 8, lines 60-65), which is within the claimed range of between about 0.5 to 2 mil prior to coating.

Regarding claims 17, 22, the article can be a bottle, jar, lidlock (lidstock) or blister pack (column 4, lines 45-50).

Art Unit: 1772

Regarding claim 18, the selected polyolefin is polypropylene (column 17, lines 30-35).

Regarding claim 19, the polysilicate coating on a thin film has a thickness between 200 to 500 nm (column 4, lines 7-8).

Regarding claim 20, the polysilicate coating comprises a lithium polysilicate (column 3, lines 30-35).

Regarding claim 21, the polysilicate coating comprises a lithium-potassium copolysilicate (column 4, lines 20-25).

Regarding claim 10, Hubbard et al. teaches that in the case of polypropylene (a selected species of polyolefin), a primer layer (solution) can be used to improve the wetting of the barrier coating solution on the polypropylene substrate where corona treatment does not cause suitable wetting of the coating on the polymer (column 4, lines 53-61). Hubbard et al. fails to teach that the primer is a maleic anhydride modified polyolefin layer, or that the polyolefin layer and primer layer are coextruded.

Adur teaches that surfaces of polyolefins such as polypropylene require a proper primer to adhere to glass surfaces, and has a composition comprising a polyolefin, which is adherent to glass and polyolefins (column 1, lines 5-20). Commercially available polypropylene grafted with maleic anhydride is one example (column 4, lines 1-12).

Therefore it would have been obvious to one of ordinary skill in the art to have used the maleic anhydride modified polypropylene layer of Adur as the primer layer of Hubbard et al., in order to obtain a coextruded polypropylene/primer bilayer with the desired laminate properties with good adhesion to the polysilicate coating.

10. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbard et al. in view of Adur as applied to claims 10, 13-22 above, and further in view of Jones (US 3,442,686).

Hubbard et al. has been discussed above, and teaches a coated polymeric article comprising a polypropylene substrate, a primer layer (column 4, lines 53-61) and a polysilicate coating to impart gas and vapor barrier properties to the polypropylene substrate (abstract).

Hubbard et al. fails to teach a topcoat of nitrocellulose on the coated article.

Jones teaches a silicate (silicon monoxide) coated film of biaxially oriented polypropylene (column 8, lines 1-6) whereby the sealable topcoat provides a synergistic effect on initial barrier properties (column 4, lines 60-68) to gas and liquid (abstract). A preferred sealable topcoat is nitrocellulose (column 5, lines 29-33). The silicon oxide coatings are transparent flexible coatings in the glassy state (flexible glass) (column 1, lines 10-20).

Therefore it would have been obvious to one of ordinary skill in the art to have provided a topcoat of nitrocellulose, as taught by Jones, to the polysilicate coated laminate of Hubbard et al., in order to provide it with synergistically improved barrier properties.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.



Art Unit: 1772

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sow-Fun Hon

08/02/04